

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of ) Group Art: 2881  
Hartley ) Examiner: Z. Hashmi  
Serial No.: )  
Filed: June 23, 2003 )

Attorney Docket No.: ION-07

Title: IONIZATION SPECTROMETER

**PETITION TO EXPEDITE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir/Madam:

Please advance the examination of the above-identified application by granting this Petition to Make Special under M.P.E.P. § 708.02 XI, or in the alternative, under M.P.E.P. § 708.02 X.

## SPECIAL STATUS FOR INVENTIONS COUNTERING TERRORISM

The subject matter of the application relates to an ionization source, which when used in connection with a detection system, such as a mass spectrometer, can detect the presence of a wide variety of substances. Unlike conventional systems, the current invention when used with an appropriate detection system is capable of parts per trillions measurements by (i) ionizing every molecule; (ii) not fracturing molecules; (iii) allowing the detection of every molecule; and (iv) preventing ions from colliding with neutral gasses. Accordingly, the current invention can detect molecules that are difficult or impossible to reliably detect with conventional systems, such as substances like plastic explosives which have extremely low vapor pressures. The assignee of this invention, Ionfinity LLC, intends to incorporate its ionization source into systems that would be

deployed at airports, checkpoints, ports, post offices, and other locations, as well as handheld portable units, for application where it is desirable to screen passengers, automobiles, cargo, mail and other items of interest that might be employed by terrorists. The Applicant believes that the current invention will significantly aid the country's efforts against terrorism and believe that prompt disclosure of the advances herein will benefit such advances.

**SPECIAL STATUS FOR INVENTIONS RELATING  
TO CANCER / AIDS RESEARCH**

As stated above, the current invention has the capability to analyze a wide variety of molecules without fracture. This is especially important when analyzing large and complex biological materials in connection with cancer or AIDS research. Mass spectrometers and other detection systems have long been used in connection with an ionization source to characterize genetic samples (for sequencing, drug discovery, and other diagnostic purposes). As conventional systems can result in the fracture of molecules, researchers and scientists must attempt to reconstruct the fractured molecules based on the detected fragments. Such conventional systems require large samples to determine the constituents or presence of a certain molecule and often result in error. The current invention, on the other hand, provides a much more precise system for the pre-conditioning, ionization, and characterization of genetic material which will be helpful in the fields of cancer and AIDS research. The company is currently looking to license this technology to a large diagnostics company and believes that prompt disclosure of the advances herein will benefit the life sciences community.

Respectfully submitted,



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